Analysis of Flow Experience in Online Gaming: A Study from Consumers' Perspective

A

Synopsis

Submitted in the partial fulfilment for the requirement of

Doctor of Philosophy

in

MANAGEMENT

Submitted by

PRACHI AGARWAL

Under the Supervision of

PROF. SANJEEV SWAMI
Co-Supervisor

DR. ROHIT RAJWANSHI
Supervisor
Assistant Professor

Department of Management, Faculty of Social Sciences
Dayalbagh Educational Institute (Deemed to be University)
Dayalbagh, Agra – 282 005

2024

SECTION 1

INTRODUCTION

In India, the online gaming industry is growing at a remarkable pace, making the country one of the most prominent gaming destinations on the global map. (EY, 2023). India is experiencing a rush in online gaming, driven by a young and tech-savvy population (Gen Z) (Statista, 2023). India's online gaming industry originated in the 2000s with the arrival of console and Personal Computer (PC) gaming, which successfully drew many middle-income groups of Indians to digital gaming platforms. During the mid-2000s, social games constituted the dominant form of online gaming. This phenomenon was enabled by the emergence of global games developed by international developers, with the Indian development ecosystem primarily serving as a conduit for these international developers. (KPMG, 2017). Since then, India has been an emerging country and is at the cusp of growth in the online gaming industry.

1.1 Online Gaming Industry In India

India's online gaming industry has emerged as an active industry, taking users across the nation into the media and entertainment industry. With the growth in internet penetration and smartphone accessibility, online gaming has become a main source of social interaction and entertainment for millions (EY, 2023). The evolving media and entertainment industry in India is predicted to reach Rs. 2.34 trillion (US$ 29.2 billion). It is projected to grow at a CAGR (Compound Annual Growth Rate) of 10% to Rs. 2.83 trillion (US$ 35.4 billion) by FY25 and US$ 73.6 billion by FY27 (projected). In 2020, the Indian mobile gaming market was valued at US$ 1.2 billion, representing a compound annual growth rate (CAGR) of 6.1% by FY25. The country's average revenue per user was US$ 8.8, with a user penetration rate of 10.1%. (IBEF, 2023). The industry's rapid growth is not only a piece of evidence of its popularity but also reflects a significant contributor to the country's media and entertainment sector.

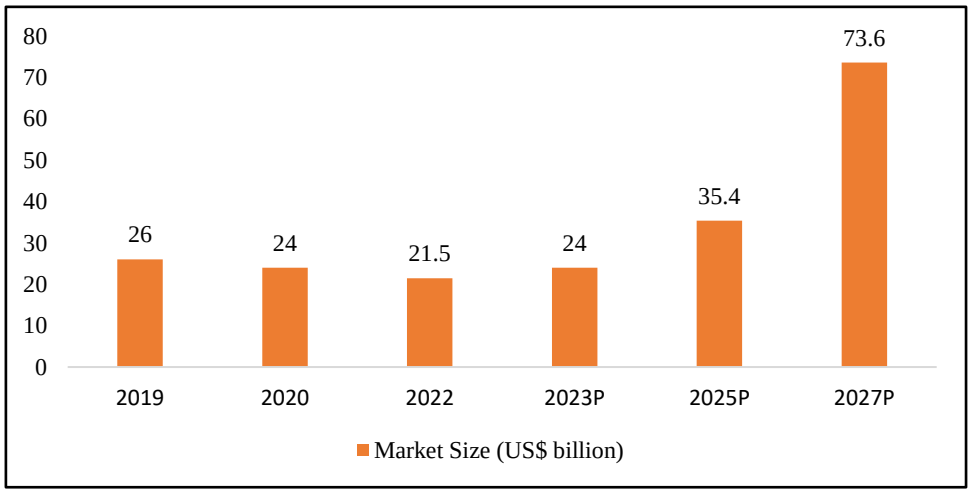

Figure 1 Market Size of Media and Entertainment Industry
(Source: IBEF Report (August 2023))

Between fiscal years 2020 and 2023, the online gaming sector in India exhibited a notable growth rate of 28% compounded annually, reaching a market size of INR 16,428 crore in the financial year 2023. Projections indicate an anticipated market size of INR 33,243 crore in fiscal year FY28, reflecting a 15% CAGR. Mobile gaming continues to be the dominant form of gaming in India, with 94% of users preferring mobile platforms. This 'mobile-first' trend is a significant driving force for the long-term expansion of the Indian gaming market. In the fiscal year 2023, India claimed the status of the world's second-largest online gaming community with approximately 42.5 crore gamers, trailing behind China's 75 crore gamers. Forecasts indicate a steady growth of Indian online gamers at a CAGR of 5%, projecting an increase to 53.8 crore by fiscal year 2028. It is anticipated that the proportion of paying gamers within the overall gamer base will increase, reaching 34% by the fiscal year 2028 (EY, 2023).

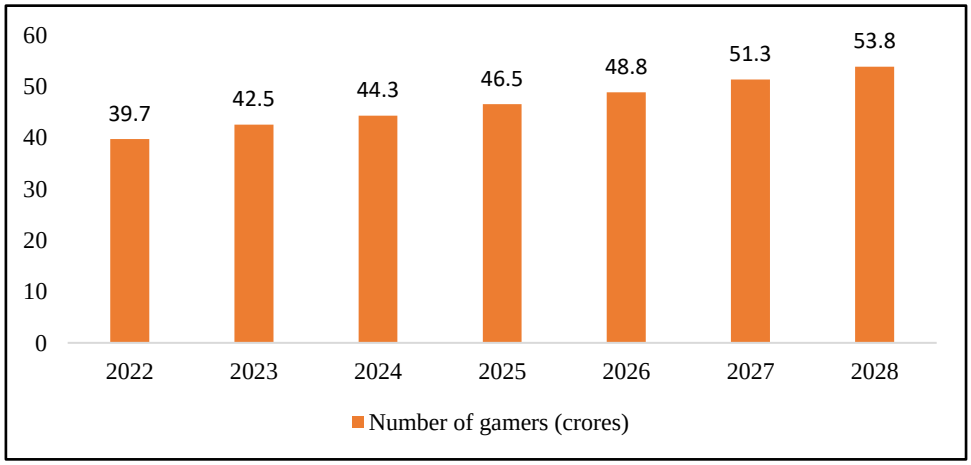

Figure 2 Number of gamers in India (Crores)
(Source: EY analysis and industry discussions (December 2023))

India's distinctive demographic profile contributes to a unique gaming landscape, with 65-70% of gamers below the age of 34 capitalizing on the world's largest youth population (EY, 2023). This demographic advantage positions India as a promising economy for future growth in game consumption. It also sets the country to emerge as a hub for gaming trends and innovations, setting a path for the evolution of the online gaming industry.

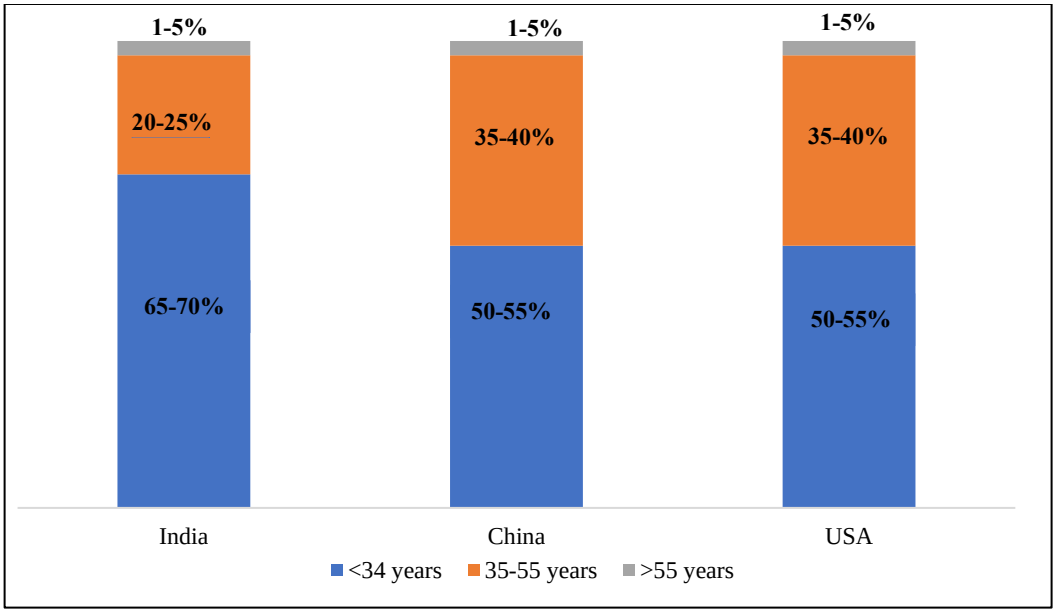

Figure 3 Demographic profile of gamers – India vs global peers
(Source: Statista estimates; EY analysis (December 2023))

The online gaming sector in India has experienced a notable expansion, exhibiting considerable economic potential. Projections indicate a notable CAGR of 13% over the next five years (FY24-28E), exceeding the nation's Gross Domestic Product (GDP) growth estimate of 6-7%. Notably, this sector has consistently attracted investments, totaling INR 22,931 crore between fiscal years 2020 and 2024 Year-to-Date (YTD), originating from both domestic and foreign sources. Moreover, the online gaming segment directly and indirectly employs approximately one lakh individuals, potentially expanding job opportunities to 250,000 by the year 2025 (EY, 2023). These figures indicate the sector's substantial impact on the economy, providing a base for further study.

1.2 Consumers of Online Gaming

Consumers' preferences and behavior play a significant role in shaping the growth and success of the online gaming industry. Online gaming witness expansion, reaching a staggering 500 million gamers by

2025 (EY, 2021). India currently stands as the world's second-largest online gaming market, with approximately 42.5 crore gamers in 2023, and projects a further increase, with the number of gamers expected to reach 53.8 crore by 2028 (estimated). India's substantial gamer base of 65-70% of Consumers of online gaming fall below the age of 34 (EY, 2023). This youth-centric profile positions India favorably for future growth in game consumption. This indicates significant potential for growth within the Indian gaming segment.

Games that offer immersive gameplay (Ermi et al; 2005), engaging elements, and interactive features along with motivation factors are more likely to attract and retain users. Consumer attributes like Perceived Ease of Use (Chin-Lung Hsu et al., 2003), Motivation (Santana et al., 2022), User Value (Chang, 2013), and Interactivity (Kim et al., 2005), influence their gaming behaviors and preferences. Individuals may seek different experiences from gaming, such as relaxation, competition, socializing, or skill-building. Understanding these indicators helps to meet diverse consumer needs. Additionally, indicators like Customer Lifetime Value (CLV) (Carlson et al., 2017) which reflects the long-term value that a consumer brings to a gaming platform along with E-Word of Mouth (Cornwell, 2005) and E-Loyalty (Kim, 2004) are important indicators that contribute significantly to organization value. On the other hand, consumer wellness outcomes, such as Subjective Happiness (Jie Hew et al., 2023), Psychological Distress (Partington et al., 2009), and Pathological Internet Use (Park & Hwang, 2009), highlight the importance of the wellbeing of consumers. Thus it can be said that the relationship between consumers and online gaming is multi-dimensional and dynamic.

Hence it becomes relevant to study and understand the consumers of online gaming since are not only associated with online gaming but are integral stakeholders in this industry and, contribute to growth and sustainability. As the industry continues to grow, its relevance and impact will shape the arena of Indian gaming for years to come.

1.3 Flow Experience in Online Gaming

In recent years, there has been a focus on the application of flow theory as a foundational framework for elements that contribute to engagement in online environments. This theory has its origins in the works of Csikszentmihalyi (1975, 1990). He coined the term "Flow" to capture this all-surrounding and immersive experience. The proposed research is focused on the construct of “Flow Experience”. The

concept represents the “state in which individuals are so involved in an activity that nothing else seems to matter”. It is proposed that flow experience is a peculiar psychological phenomenon that emerges when people engage in a range of activities, including sports, work, shopping, games, hobbies, and computer use (Csikszentmihalyi, 1995; 1990). Flow experience is also referred to as the optimal experience or being in the zone. It is described as “identical to what players experience when immersed in games, losing track of time and external pressure, along with other interests.” (Chen, 2007).

The concept of flow experience has been the subject of numerous studies in a variety of contexts within the field of information technology, including web 2.0, online shopping, online games, e-learning, social networking sites, the World Wide Web, email and instant messaging (Chang et al., 2012). It has been demonstrated that flow is a critical factor in the attractiveness of online games (Weibel et al., 2008). Online games that facilitate flow are more likely to be played, whereas those that do not create flow are more likely to be discarded (Sherry, 2004). Players value online games based on whether they provide a flow experience, with flow being a crucial factor in the continuous play of online games (Chen, 2007) (Holt, 2000). Researchers have discovered a natural connection between flow and online games. It is of great importance to identify the reasons behind people's engagement with online games, as this construct has been widely established for the study of consumer experience in any setting, and its application to gameplay is intuitive (Cowley et al., 2008).

SECTION 2

LITERATURE REVIEW

A comprehensive electronic-based search was conducted to identify published evidence for key search strings like “Online Gaming”, “Consumer Behavior”, “Technology Adoption”, and “Flow Experience”. This involved an extensive review of various reputable sources of literature, such as Web of Science, ABDC Council, journal rankings, UGC Care list Scopus, and other scholarly databases. The search includes working papers, books, quarterly, half-yearly, annual industry reports (IBEF, EY, KPMG, etc), doctoral theses and dissertations, and research articles. Also, references of included studies were the additional source of potentially eligible research papers.

Subsequently, 100 papers were initially identified for the study. A thorough examination of relevant papers and studies has been undertaken based on their relevance, credibility, and contribution to

understanding the key elements in the context of the Online Gaming Industry. Table 1 summarises the meta-analysis of the papers identified.

2.1 Literature Map

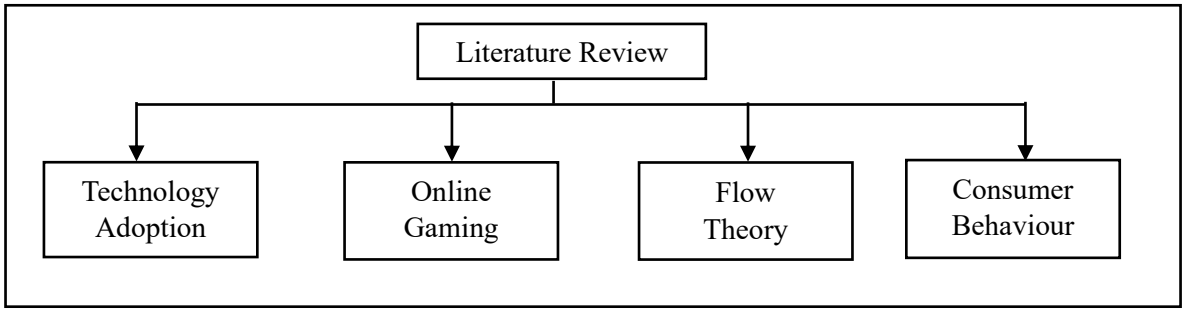

Figure 4 Literature-Map
(Source: Researcher's Construct)

2.2 Conceptual Coverage of Literature

To understand the online gaming industry from a management perspective, the literature review is divided into broad areas of study. The first area is technology adoption, which highlights the mechanisms of consumers to use and adopt gaming technology. Several studies have explored the adoption of online games through the lens of the Technology Acceptance Model (TAM) model (Hamari et al., 2015; Wang et al., 2017). The research aims to assess the acceptance of online games using the TAM model (Davis, 1989). The next is online gaming (Liu, 2016; Chang, 2012; Ramayah et al., 2016; Huang, 2017) which addresses the uniqueness of the industry. It analyses player behavior, market trends, and emerging business models, offering a holistic understanding of the consumers and the industry.

Further the concept of flow theory specifically the "Flow Experience" (Csikszentmihalyi, 1975; Hoffman et al., 2009) emerged as a significant concept. Previous research has illustrated the significance of the optimal flow state in the understanding of consumer attitudes and behavior across a range of computer-mediated environments. Based on the evidence the optimal flow state emerges as the central driving mechanism within the online gaming context. Lastly, the review extended to the aspect of consumer behaviour. In general terms, consumer behaviour refers to the actions of consumers towards an attitude object (Solomon, 2006). This explores the decision-making processes and preferences of individuals participating in online gaming making it relevant for study from the market viewpoint.

Table 1 Summary Table of Literature Review

Summary of Literature Review													
				Area of Study				Methodology				Context	
S. No.	Title	Author (Year)	Category	Technology adoption	Online gaming	Flow theory	Consumer Behaviour	Descriptive	Experimental	Exploratory	Empirical	Indian	International
1	"Understanding online business simulation games: The role of Flow Experience, perceived enjoyment and personal innovativeness."	Matute-Vallejo, J., & Melero-Polo, I. (2019).	Research Paper	✓	✓	✓				✓			✓
2	"Exploring Chinese users' acceptance of instant messaging using the theory of planned behavior, the technology acceptance model, and the Flow theory."	Lu, Y., Zhou, T., & Wang, B. (2009)	Research Paper	✓		✓		✓		✓			✓
3	"Understanding the Behavioural intention to play online games: An extension of the theory of planned behavior"	Lee, M. C. (2009).	Research Paper		✓	✓		✓					✓
4	"A model for exploring players Flow Experience in online games"	Chuang-Chun Liu, (2017)	Research Paper		✓	✓	✓	✓			✓		✓
5	"Fundamental components of the gameplay Experience: Analysing immersion.	Ermi, L., & Mäyrä, F. (2005, June).	Research Paper		✓	✓	✓				✓		✓
6	"Marketing Research: Methodological Foundations"	Gilbert A. Churchill(1987)	Book					✓	✓	✓	✓		✓
7	"Examining users′ intention to continue using social network games: A Flow Experience perspective".	Chang, C. C. (2013).	Research Paper	✓	✓	✓	✓	✓					✓

8	"Flow online: lessons learned and prospect"	Hoffman, D. L., & Novak, T. P. (2009).	**Research Paper**	✓		✓	✓		✓	✓			✓
9	"Flow theory and online marketing outcomes: a critical literature review"	Obadă, D. R. (2013).	**Research Paper**		✓	✓	✓			✓			✓
10	"Measuring the Flow Experience among Web users."	Hoffman, D. L., & Novak, T. P. (1997).	**Research Paper**		✓	✓	✓	✓		✓			✓
11	"Task Characteristics and the Experience of Optimal Flow in Human-Computer Interaction"	Jawaid A. Ghani & Satish P. Deshpande (1994)	**Research Paper**		✓			✓		✓			✓
12	"Sixteen S-squared over D-squared: A relation for crude sample size estimates"	Lehr, R. (1992)	**Research Article**						✓				✓
13	"Measuring Flow in Gamification: Dispositional Flow scale-2"	Hamari, J., & Koivisto, J. (2014).	**Research Paper**	✓	✓	✓	✓			✓			✓
14	"Antecedents and consequences of Flow state in e-commerce"	Yun Jung Lee, Sejin Ha, Zachary Johnson, (2019)	**Research Paper**		✓	✓	✓	✓		✓			✓
15	"Extended RFM logit model for churn prediction in the mobile gaming market"	Perišić, A., & Pahor, M. (2020).	**Research Paper**	✓	✓		✓	✓	✓				✓
16	"perCLTV: A general system for personalized customer lifetime value prediction in online games"	Zhao, S, Wu, R. et al; (2023).	**Research Paper**		✓		✓	✓	✓				✓
17	"Go with the Flow: Engineering Flow Experiences for customer engagement value creation in branded social media environments"	Carlson, J., de Vries, N. J., Rahman, M. M., & Taylor, A. (2017).	**Research Paper**	✓			✓	✓	✓				✓
18	"Improving profitability with customer-centric strategies: The case of a mobile content provider"	Bonacchi, M., & Perego, P. (2012).	**Research Article**	✓			✓	✓		✓			✓

19	"Investigating two customer lifetime value models from segmentation perspective"	Hiziroglu, A., & Sengul, S. (2012).	**Research Paper**				✓		✓	✓			✓
20	"Comfort your online customer: quality, trust, and loyalty on the internet"	Ribbink, D., Van Riel, A. C., Liljander, V., & Streukens, S. (2004).	**Research Paper**				✓	✓		✓			✓
21	"Influence of Temperament and Character on Online Gamer Loyalty Perspectives from Personality and Flow Theories"	Han-Chung Huang, Li-Shia Huang, eet al; (2017)	**Research Paper**	✓	✓	✓	✓	✓		✓			✓
22	"Marketing research: an applied orientation"	Malhotra, N. K. (2020).	**Book**					✓	✓	✓	✓	✓	
23	"Gamifying the digital shopping Experience: games without monetary participation incentives increase customer satisfaction and loyalty"	Bauer, J. C., Linzmajer, M., Nagengast, L.,& D'Cruz, E. (2020).	**Research Paper**	✓		✓	✓	✓		✓			✓
24	"Online promotional games: Impact of Flow Experience on word-of-mouth and personal information sharing"	Renard, D. (2013).	**Research Paper**	✓	✓	✓	✓	✓					✓
25	"Effect of Participation in Flow Experience Activity on Depressive Symptoms in University Students: A Quasi Experimental Study"	Amra Khan ; Amena Zehra Ali (2023)	**Research Paper**	✓		✓	✓		✓	✓		✓	
26	"Are Online Mobile Gamers Really Happy? On the Suppressor Role of Online Game Addiction"	Jun-Jie He w et al; (2023)	**Research Paper**	✓	✓		✓	✓		✓	✓		✓
27	"Factors contributing to psychological distress in the working population, with a special reference to gender difference"	Marttunen, M., & Suvisaari, J. et al; (2021)	**Research Paper**				✓	✓		✓			✓

28	"The impact of online gaming addiction on mental health among IIUM students"	Kamal, N. S. Z., & Wok, S. (2020).	**Research Paper**	✓	✓		✓	✓					✓
29	"Online gaming addiction and depressive symptoms among game players of the glory of the King in China: the mediating role of affect balance and the moderating role of Flow Experience"	Hu, H., Zhang, G., Yang, X., Zhang, H., Lei, L., & Wang, P. (2022).	**Research Paper**	✓	✓	✓	✓	✓		✓			✓
30	"A Model Of Flow And Play In Game-based Learning The Impact Of Game Characteristics, Player Traits, And Player States"	Pavlas, Davin(2010)	**Dissertation**		✓	✓	✓	✓		✓			✓
31	"Ruminations and Flow: Why do people with a more harmonious passion Experience higher well-being?"	Carpentier, J., Mageau, G. A., & Vallerand, R. J. (2012).	**Research Paper**		✓	✓	✓				✓		✓
32	"Parental Flow and positive emotions: Optimal Experiences in Parent–child interactions and parents' well-being"	Shoshani, A., & Yaari, S. (2022).	**Research Paper**			✓	✓	✓		✓			✓
33	"Time loss whilst playing video games: Is there a relationship to addictive behaviours?"	Wood, R. T., & Griffiths, M. D. (2007).	**Research Paper**	✓	✓		✓	✓	✓				✓
34	"Airline customer lifetime value estimation using data analytics supported by social network information"	Çavdar, A. B., & Ferhatosmanoğlu, N. (2018).	**Research Paper**				✓		✓		✓		✓
35	"Collaborate and share: An experimental study of the effects of task and reward interdependencies in online games"	Choi, B., Lee, I., Choi, D., & Kim, J. (2007).	**Research Paper**	✓	✓		✓		✓				✓

36	"Dynamic immersive visualization environments: Enhancing pedagogical techniques"	North, M. M., & North, S. M. (2019).	**Research Paper**	✓			✓	✓	✓				✓
37	"Evaluating intervention programs with a pretest-posttest design: A structural equation modeling approach"	Alessandri, G., Zuffianò, A., & Perinelli, E. (2017).	**Research Paper**	✓			✓	✓	✓				✓
38	"Online consumer behavior: Theory and research in social media, advertising and e-tail"	Scheinbaum, A. C. (Ed.). (2012).	**Book**	✓			✓			✓			✓
39	"Service recovery's influence on consumer satisfaction, positive word-of-mouth, and purchase intentions"	Maxham III, J. G. (2001).	**Research Paper**	✓			✓	✓	✓				✓
40	"Measuring and defining the Experience of immersion in games"	Jennett, C., Cox, A. L., Cairns, P., et al; (2008).	**Research Paper**	✓	✓	✓	✓	✓	✓				✓
41	"Does gamification affect Flow Experience? A systematic literature review"	Oliveira, W., Pastushen et al; (2021)	**Research Paper**	✓	✓	✓			✓				✓
42	"Educational research: An introduction"	Gall, M. D., Borg, W. R., & Gall, J. P. (1996).	**Book**					✓	✓	✓	✓		✓
43	"What Drives People to Continue to Play Online Games? An Extension of Technology Model and Theory of Planned Behavior"	Ming-Chi Lee & Tzung-Ru Tsai (2010):	**Research Paper**	✓	✓	✓	✓	✓					✓
44	"E-WOM Scale: word-of-mouth measurement scale for e-services context"	Goyette, I,Marticotte, F et al;. (2010).	**Research Paper**	✓			✓	✓					✓
45	"Team participation and online gamer loyalty"	Teng, C. I., & Chen, W. W. (2014).	**Research Paper**	✓	✓			✓					✓
46	"Differential Effects of Anxiety on Internet Gaming Disorder: A Large-Scale Cross-Sectional Survey"	Huang, X., Shi, H. X., Li, H. Q., Guo, W. J., Luo, D., & Xu, J. J. (2022).	**Research Paper**		✓		✓	✓					✓

47	"Depressive symptoms and depression in individuals with internet gaming disorder: A systematic review and meta-analysis"	Ostinelli, E. G., Zangani, C et al; (2021).	**Research Paper**	✓	✓		✓	✓			✓		✓
48	"Business research methods."	Cooper, D. R., & Schindler, P. (2014).	**Book**					✓	✓	✓	✓		✓
49	"The association between online gaming, social phobia, and depression: an internet survey"	Wei, H. T., Chen, M. H., Huang, P. C., & Bai, Y. M. (2012).	**Research Paper**	✓	✓		✓						✓
50	"The influence of goal-directed and experiential activities on online Flow Experiences"	Novak, T. P., Hoffman, D. L., & Duhachek, A. (2003).	**Research Paper**	✓		✓	✓	✓		✓			✓
51	"Exploring technology satisfaction: An approach through the Flow Experience"	Calvo-Porral, C., Faíña-Medín, A., & Nieto-Mengotti, M. (2017).	**Research Paper**	✓		✓	✓	✓		✓			✓
52	"The role of Flow for mobile advergaming effectiveness"	Catalán, S., Martínez, E., & Wallace, E. (2019).	**Research Paper**	✓	✓	✓	✓	✓					✓
53	"Flow Experience in game-based learning–a systematic literature review"	Perttula, A., Kiili, K., Lindstedt, A., & Tuomi, P. (2017).	**Research Paper**		✓	✓	✓	✓		✓			✓
54	"The effect of consumer motivation to play games on video game-playing engagement"	Banyte, J., & Gadeikiene , A. (2015).	**Research Paper**	✓	✓		✓	✓	✓		✓		✓
55	"Impact of Intrinsic and Extrinsic Gaming Elements on Online Purchase Intention"	Wu, X., & Santana, S. (2022).	**Research Paper**	✓	✓		✓	✓	✓		✓		✓
56	"Toward a psychology of optimal Experience. Flow and the foundations of positive psychology"	Csikszentmihalyi, M. (2014).	**Research Paper**	✓		✓	✓	✓		✓			✓

57	"Development and validation of a scale to measure optimal Experience: The Flow state Scale"	Jackson, S. A., & Marsh, H. W. (1996).	**Research Paper**			✓	✓			✓			✓
58	"Using the theory of planned behavior and the role of social image to understand mobile English learning check-in behavior"	Nie, J., Zheng, C., Zeng, P., Zhou, B., Lei, L., & Wang, P. (2020).	**Research Paper**	✓				✓		✓			✓
59	"Predicting the drivers of behavioral intention to use mobile learning: A hybrid SEM-Neural Networks approach"	Tan, G. W. H., Ooi, K. B., Leong, L. Y., & Lin, B. (2014).	**Research Paper**	✓			✓		✓				✓
60	"Structural equation model (SEM)-neural network (NN) model for predicting quality determinants of e-learning management systems"	Sharma, S. K., Gaur, A., Saddikuti, V., & Rastogi, A. (2017).	**Research Paper**	✓			✓		✓		✓		✓

(Source: Researcher's Construct)

2.3 Research Gap

After a comprehensive literature review, it becomes evident that there has been considerable research on the online gaming industry worldwide in an international context (Kshetri, 2009; Matute-Vallej et al., 2019; Pavlas, 2010; Pahor et al., 2020; Zhao et al., 2023) but very little research has been carried out in the Indian context (world's second-largest online gaming community with 42.5 crore gamers).

The literature review also indicates that areas such as game development, use of technology, and various experiment-related studies fall mainly under the domain of computer sciences (Lee et al., 2010; Galarneau et al., 2007; Ramadan et al., 2013; Kim et al., 2013; Zhao et al., 2023) were found to be more dominating but there is lack of managerial and business-oriented research including market perspective within the context of the Indian online gaming market. There remains a notable gap in understanding the relationship among market indicators broadly involving product and consumer attributes, and the subsequent organization value and consumer wellness outcomes which are related to the overall growth and sustainability of the industry.

Furthermore, minimal research has applied the concept of "Flow Experience" specifically in online

gaming against market indicators (Liu, 2017; Chiang et al., 2011; Voiskounsky et al., 2004; Procci et al., 2012; Chang, 2013). A noticeable gap exists in understanding how product and consumer attributes lead to the flow experience of consumers and subsequently, how organization value and consumer wellness outcomes are mediated by flow experience. In the context of online gaming, such a combination remains unexplored.

Furthermore, given that Gen Z (those born between 1997 and 2012) (65-70% of gamers falling below the age of 34) (EY, 2023) constitutes a substantial portion of the user base in this industry, but rare are the scholarly investigations that talk of various aspects of consumer behavior and well-being within the online gaming context of Generation Z (Gen Z) consumers.

By bridging these gaps, the study will provide valuable insights into the rapidly evolving landscape of the online gaming industry.

SECTION 3

NEED OF THE STUDY

Given India's growing media and entertainment sector, the online gaming industry has emerged as a powerhouse, where innovation, engagement, and economic potential meet. The media and entertainment sector in India is projected to achieve an annual revenue growth of 9.7%, reaching US$ 73.6 billion by 2027. Within this landscape, the online gaming sector stands out, projecting a 6.44% growth in 2022 and anticipated growth of 8.16% by 2025 (IBEF, 2023). The online gaming sector in India is growing, with a projected 13% CAGR over the next five years, overtaking the nation's GDP growth estimate of 6-7%. Investments have totaled INR 22,931 crore between FY20 and FY24 YTD from domestic and foreign sources. It currently employs around 100,000 individuals, with job opportunities expected to expand to 250,000 by 2025. These statistics indicate that the online gaming industry is promising and has significant economic potential and India is the upcoming emerging player in this industry. Thus it becomes significant to study this industry within the Indian context, where comprehensive research is lacking despite the sector's growing significance predominantly involving Gen Z.

Furthermore, there is a need to study relationships among indicators of the industry such as product and consumer attributes and flow experience (Csikszentmihalyi, 1975;1990) which is a crucial element in this industry that leads to organization value and consumer wellness outcomes that significant for the

growth and sustainability of the industry. Additionally, when it comes to sustainability, it is very important to study one such economic indicator which is Customer Lifetime Value (CLV) (Jamie Carlson et al., 2017; Shiwei Zhao et al., 2022) which is the most significant variable that organizations try to enhance.

Moreover, in a recent study (Witmer, 2021) it was found that 91% of Gen Z had physical and emotional symptoms connected to anxiety or mental disorder. The study was carried out in the context of social networking websites. Hence it can be safely inferred that Gen Z is a vulnerable segment. Therefore there is a need to study the wellness of consumers (Gen Z) of the online gaming industry. This research may derive valuable insights relevant to industry stakeholders, policymakers, and researchers shaping the managerial perspective.

SECTION 4

CONCEPTUAL FRAMEWORK

The conceptual framework has been developed from the "Antecedent, Behavior, Consequence" (ABC) framework, applied in applied behavior analysis by Skinner (1950), it considers product and consumer attributes as antecedents that influence the mediating variable, “Flow Experience”, which influences organization value and consumer wellness outcomes. The framework establishes a connection between antecedents and consequences of “Flow Experience”. Additionally, demographic factors such as age, gender, etc shall be considered as potential moderators within this framework.

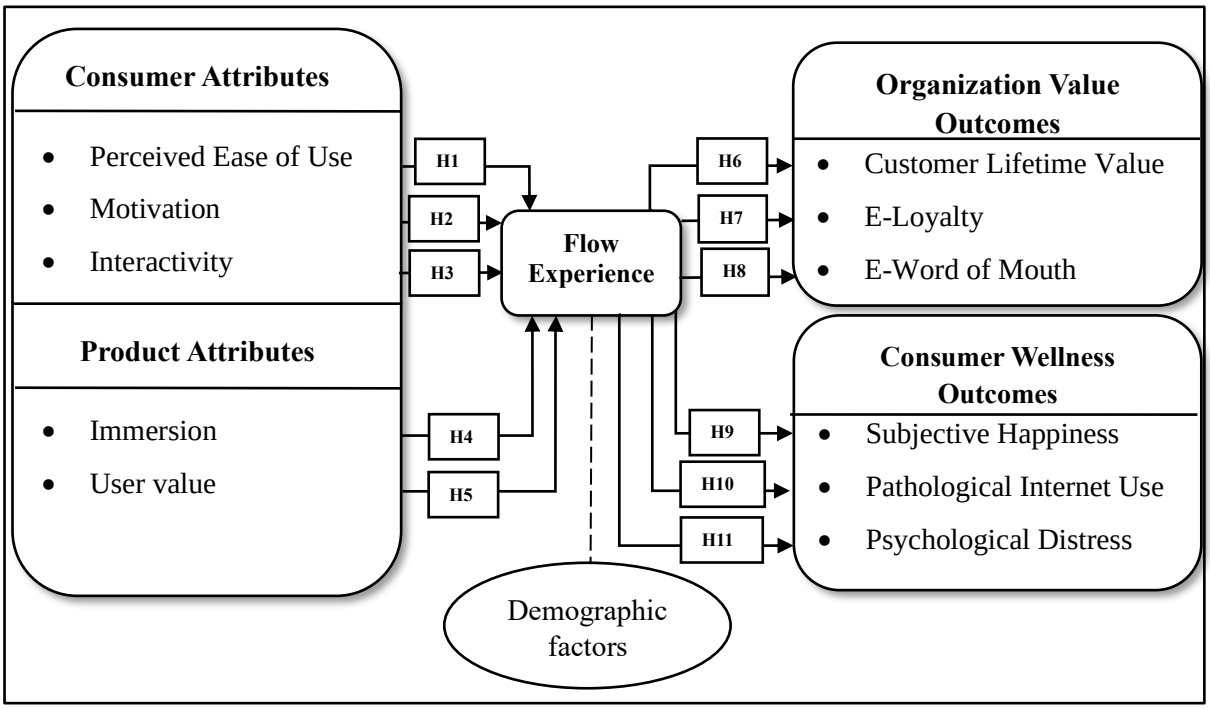

Figure 5 Conceptual Framework
(Source: Researcher's Construct)

Table 2 Meaning of Constructs

S. No.	Construct	Meaning (In the context of Online Gaming)	Reference(s)
1	**Perceived Ease of Use**	"The extent to which the user believes that playing online games is effortless."	Chin-Lung et al., (2003)
2	**Motivation**	"The term motivation is defined by authors as a 'stimulus to do something'. According to this definition, motivation can be considered an antecedent of certain behaviors that a person engages in."	Roberts et al., (2000)(2014)
2a	**Intrinsic Motivation**	"People have intrinsic motivation to play games because they seek personal satisfaction because of pleasure, curiosity, or interest, but not because of external pressure, urging, or some particular rewards."	Lin et al., (2000)(2012) (2015).
2b	**Extrinsic Motivation**	"Extrinsic motivation to play games is associated with tangible results of game-playing or another activity such as rewards (money, incentive, compliment, prizes), pressure (threat, punishment), or recognition from other people and/or players"	Lafreniere et al.,(2011) (2012)(2014)
3	**Interactivity**	"It refers to how players communicate and influence each other during gameplay. This involves expressions of encouragement, sharing strategies, or engaging in combat or cooperation with opponents or other players."	Kim et al., (2005); Laurel, (1993)
3a	**Human-to-Human Interaction**	"Human-to-Human interactivity enables gamers to learn more about online games and enhances team competition, resulting in increased, skill, challenge perception, and attention focus."	Kim et al., (2005)

3b	**Human-to-Machine Interaction**	"Human-to-Machine interactivity concerns the information provided by online games to assist gamers while playing. Machine-generated information facilitates skill learning and attention focusing in online gamers and therefore increases skills and perceived challenges."	Kim et al., (2005)
4	**Immersion**	"The degree to which players feel integrated with the game space is a measure of their sense of immersion".	Taylor, (2002).
4a	**Sensory Immersion**	"The degree to which the 'audiovisual' aspects of a digital game create a captivating, "three-dimensional" experience that absorbs players, overpowering real-world sensory input. It involves impressive 'graphics, stereophonic sound', and large screens to engross players in a focused and comprehensive game world."	Ermi, & Mäyrä, (2005)
4b	**Challenge Immersion**	"This is the degree of immersion that is at its most powerful when one can achieve a satisfying balance of challenges and abilities. Challenges can be related to motor skills or mental skills such as strategic thinking or logical problem solving, but they usually involve both to some degree."	Ermi, & Mäyrä, (2005)
4c	**Imaginative-Based Immersion**	"This is the area in which the game offers the player a chance to use her imagination, empathize with the characters, or just enjoy the fantasy of the game."	Ermi, & Mäyrä, (2005)
5	**User Value**	"It refers to the assessment players make after interacting with the game. It's based on how useful they find the game compared to their expectations, influencing their overall satisfaction with the gaming experience".	Zeithaml, (1988)
5a	**Hedonic Value**	"It is the enjoyment and satisfaction players experience through spontaneous and subjective responses, such as entertainment, exploration, and self-expression. It's about having fun and deriving enjoyment from the game itself, rather than just completing tasks."	Babin et al.,(1994)
5b	**Utilitarian Value**	"It is about the practical usefulness and functionality that players seek in pursuit of specific outcomes. It's focused on the instrumental and cognitive aspects of gaming, representing value as a means to an end. Utilitarian value involves assessing the balance between functional benefits and sacrifices made during gameplay."	Overby and Lee, (2006)
6	**Flow Experience**	"A state in which consumers are so involved in an activity that nothing else seems to matter."	Csikszentmihalyi (1990)
7	**Customer Lifetime Value**	"Within the context of online games, CLTV is defined as the expected monetary revenue generated by one player throughout the full lifetime of the game till associated with the game."	Peter S Fader et al., (2005)
8	**E-Loyalty**	"A consumer's favorable attitude towards the e-game results in repeat playing behavior."	Srinivasan et al., (2002)
9	**E-Word of Mouth**	"Any positive or negative statement made by potential, actual, or former players about any online game, which is made available to a wide audience via the Internet."	Hennig-Thurau et al., (2004)
10	**Subjective Happiness**	"The psychological state of well-being, joy, and contentment" derived from gaming experiences	Akın, (2012)

11	**Pathological Internet Use**	"It is defined as compulsive or excessive use of the internet that interferes with daily life activities and overall well-being. It is characterized by an individual's inability to control or limit their online behavior, leading to negative consequences."	Wang-Lin Dong et al., (2023)
12	**Psychological Distress**	"A state of emotional suffering characterized by symptoms of depression (e.g., loss of interest, unhappiness, desperateness) and anxiety (e.g., restlessness, feeling tense)."	Horwitz AV, (2002)
12a	**Anxiety**	"It is an uncontrollable, diffuse, unpleasant, and persistent state of negative affect, characterized by anticipation regarding unpredictable and unavoidable future danger, and accompanied by physiological symptoms of tension and a constant state of heightened vigilance."	Barlow, (2002)
12b	**Depression**	"Depression is marked by a prolonged state of low mood or diminished enjoyment and interest in activities."	WHO Jin-Liang Wang, (2019)

(Source: Researcher's Construct)

SECTION 5

OBJECTIVES AND HYPOTHESES

5.1 Objectives

The objectives have been formulated based on the results of a comprehensive literature review.

Objective 1: To explore the prevailing market scenario of the online gaming industry in India.

Objective 2: To study the influence of the identified set of antecedents (consumer and product attributes) over the flow experience of consumers of the online gaming industry.

Objective 3: To study the influence of flow experience on the identified set of consequences (organization value and consumer wellness outcomes) within the online gaming industry.

Objective 4: To recommend a strategic framework based on the results obtained.

5.2 Hypotheses

The research aims to empirically test the hypotheses from the framework, identified in existing literature and previous research. This framework along with the hypotheses is important to emphasize the significance of understanding these relationships for understanding the factors influencing consumer behavior and organizational outcomes.

5.2.1. Perceived Ease of Use and Flow Experience

Previous studies have demonstrated the reliability of the TAM model across a broad range of contexts. Over the past decade, researchers in the field of information systems have demonstrated a significant

interest in TAM. Perceived ease of use (Davis et al. 1989) in the context of online gaming refers to the extent to which the user believes that playing online games is effortless (Chin-Lung et al., 2003). Previous research indicates a positive correlation between perceived ease of use and flow experience (R. Rettie, 2001) (Chin-Lung Hsu, 2003). When individuals perceive a system as easy to use, it lowers cognitive barriers, facilitating a seamless and immersive flow experience. Thus, it is hypothesized as:

H1: Perceived Ease of Use positively influences Flow Experience

5.2.2 Motivation and Flow Experience

Extensive literature supports that Motivation is directly linked to flow experience. Motivated individuals tend to exhibit higher levels of engagement and focus, aligning with the characteristics of Flow (Myung Ja Kim et al., 2017). An act can be driven by multiple motivations, encompassing drives, desires, wishes, needs, and goals, as outlined by Maslow (1943). According to Przybylski et al., (2010), gaming inherently possesses motivation. They suggest that experiencing a high level of engagement during gaming yields the greatest value in terms of the overall Experience. Consequently, it can be theorized, as asserted by Murphy (2011), that a primary motivation for individuals to engage in video games is to attain a state of Flow. Motivations are commonly categorized as either ‘intrinsic ’ or ‘extrinsic’, as discussed by Chantal, Vallerand & Vallières (1995), Ryan & Deci (2000), and Teo, Lim, and Lai (1999). Intrinsic motivation may be defined as an inherent inclination towards internal values. Such values can be categorised as novelty, capacity, exploration, and learning. (Ryan & Deci, 2000). Csikszentmihalyi (1989) proposed that individuals entering the flow state would encounter heightened engagement, activity, and a sense of joy and contentment. Moreover, this state of flow is believed to align closely with intrinsic motivation, as it is accompanied by feelings of deep absorption and genuine interest. Conversely, Extrinsic motivation is defined as the pursuit of rewards and the avoidance of punishments or penalties (Chantal et al., 1995). Individuals who use social media take risks to achieve their goals, which results in changes in communication behaviours. These users develop self-broadcasting skills and form connections (Bazarova & Choi, 2014). Based on existing studies, gaming research considers both intrinsic and extrinsic motivations to be significant factors in the experience of flow (Bazarova & Choi, 2014). Thus, it is hypothesized as:

H2: Motivation positively influences Flow Experience

H2a: Intrinsic Motivation positively influences Flow Experience

H2b: Extrinsic Motivation of use positively influences Flow Experience

5.2.3 Interactivity and Flow Experience

Previous research establishes a positive link between interactivity and flow experience. One of the defining characteristics of online gaming is its ability to facilitate simultaneous interaction between hundreds or thousands of gamers. This level of interactivity represents a unique aspect of the online gaming experience. (Kim et al., 2005) (Weibel et al., 2008). In the context of online gaming, social interactivity assumes significance as gamers engage in group competitions, necessitating information sharing for collective success (Kim et al., 2005). The concept of flow, as a state of cognition, is characterised by a focus on attention, interactivity etc on websites. (Novak, Hoffman, &Yung, 2000).In this context, both Human-to-Human and Human-to-Machine interactivity are anticipated to shape the level of flow experience.

Human-to-Human interactivity in online gaming plays a pivotal role in fostering a deeper understanding of the game, and enhancing team competition, On the other hand, Human-to-Machine interactivity refers to the information provided by online games to assist players during gameplay. Machine-generated information that is both relevant and timely can aid in the development of skills and the focus of attention among online gamers, leading to an increase in perceived skills and challenges. (Kim et al., 2005) Thus, it is hypothesized as:

H3: Interactivity positively influences Flow Experience

H3a: Human to Human Interactivity positively influences Flow Experience

H3b: Human to Machine Interactivity positively influences Flow Experience

5.2.4 Immersion and Flow Experience

The existing literature indirectly highlights the association between immersion and flow experience. The term immersion is widely used in discussions about digital games and gameplay experiences. “The degree to which players feel integrated with the game space is a measure of their sense of immersion” (Taylor, 2002). Initially introduced by J. Huizinga in the book "Homo Ludens" (1938), the term

describes the space within which gameplay takes place, with players willingly embracing its realities throughout the gaming experience. Laura Ermi and Frans Mayrs (2005) developed a heuristic gameplay experience model that outlines key components and processes relevant to the immersion aspect of gameplay. This model, known as the Sensory, Challenge-based, and Imaginative Immersion (SCI) model, particularly focuses on immersion in the context of digital games, the term 'immersion' is preferred, as it precisely conveys the mental processes involved in gameplay (Laura et al., 2005).

Within the context of flow experience, one crucial dimension is the balance challenge and skill (Csikszentmihalyi, 1990). A study by Rose et al. (2012) in the e-retailing context and Liao (2006) in a distance learning environment supported the idea that challenge and skill are antecedents of the flow experience. Similarly, in mobile game applications, challenge and skill were found to be antecedents of flow experience (Su et al., 2016). Furthermore, a positive correlation between imagery and flow was identified in e-learning settings (Rodríguez et al., 2016). Initial evidence supporting this link was provided by studies that demonstrated the successful implementation of imagery interventions in sporting contexts, and their positive impact on enhancing flow (Jeong, 2012; Koehn et al., 2013; Nicholls et al., 2005; Pates et al., 2001). Extracting these insights and applying same to this industry. Thus, it is hypothesized as:

H4: Immersion positively influences Flow Experience

H4a: Sensory Immersion positively influences Flow Experience

H4b: Challenge Immersion positively influences Flow Experience

H4c: Imaginative Immersion positively influences Flow Experience

5.2.5 User Value and Flow Experience

Previous research also underscores the positive relation between hedonic value, utilitarian value, and the flow experience (Zhou, 2010). User value, encompassing both hedonic and utilitarian aspects, contributes to the overall satisfaction and engagement of users. Value is essentially an individual's assessment after interacting with various things or events. This value results from an overall evaluation of a product's perceived utility, comparing what one receives with what was expected (Zeithaml, 1988). This assessment can be categorized into utilitarian and hedonic values. Utilitarian value is more goal-

oriented, representing the conscious pursuit of an intended consequence, primarily functional and cognitive. “Utilitarian Value is an overall assessment of the balance between functional benefits and sacrifices” (Overby and Lee, 2006). On the other hand, “Hedonic Value is more subjective and personal, derived from spontaneous responses such as entertainment, exploration, and self-expression, emphasizing fun and enjoyment” (Babin et al., 1994; Chandon et al., 2000; Holbrook et al; 2001). Thus with this evidence, it is hypothesized as:

H5: User Value positively influences Flow Experience

H5a: Hedonic Value positively influences Flow Experience

H5b: Utilitarian Value positively influences Flow Experience

5.2.6 Flow Experience and Customer Lifetime Value.

Existing literature consistently establishes a positive relationship between flow experience and customer engagement value indirectly. After analyzing papers, it is evident that some relationship exists between the state of flow and the three components of Customer Engagement Value (CEV) which are Lifetime Value, Knowledge value, and Influencer value (Jamie Carlson et al., 2017). Kumar et al., (2010) on articulating the CEV framework, define the link between flow and CLV intentions toward the brand. Several studies depict how Customer Lifetime Value (CLV) specific to the game is a crucial element from an organization perspective thus making this component of evidently to study as it is observed that it is one of the most important factors that contribute to consumer behavior in online gaming. Thus, it is hypothesized as:

H6: Flow Experience positively influences Customer Lifetime Value

5.2.7 Flow Experience and E-loyalty.

Engaged users experiencing flow are more likely to develop a sense of attachment and commitment to the digital platform or service, fostering loyalty. Loyalty has been described in the literature as the intention of an individual to use a specific product or service repeatedly (Choi & Kim, 2004). This definition has been applied extensively in the context of online games, as evidenced by the work of Teng et al., (2012). Therefore, game users exhibit loyalty toward a game when they play it repeatedly.

Choi and Kim (2004) found that people will continue to play online games if they have an optimal experience as the flow state tends to influence consumer loyalty. Zhou, Li, and Liu (2010) observed a

significant effect of online flow on users' loyalty within mobile social networking sites. Bilgihan (2016) emphasized the optimal flow state as a significant precursor to loyalty in the e-commerce environment. This supports that flow experience positively influences e-loyalty. Thus it is hypothesized as:

H7: Flow Experience positively influences E-Loyalty

5.2.8 Flow Experience and E-Word of Mouth.

The research consistently indicates a positive correlation between flow experience and e-word of mouth. With the expansion and evolution of the internet, word of mouth has become a significant phenomenon, and marketers have attempted to leverage it through the use of online promotional games in viral marketing campaigns. Through channels such as email referrals and online forums, consumers now share information with greater ease than ever before (De Bruyn & Lilien, 2008). In intentional viral marketing campaigns, consumers are motivated to become advocates, disseminating information about a product or service to their social networks.

The essence of viral marketing lies in leveraging consumer-to-consumer communication rather than traditional company-to-consumer channels (Krishnamurthy, 2001). Some communication platforms are designed for one-on-one conversations (e.g. chat, text messaging), while others are intended for sharing and distributing information among groups of users (e.g. social networks, online communities). The research, focuses on the gaming experience, emphasizing the flow experience as a significant factor explaining why players actively share information about the games they play. Thus, it is hypothesized as:

H8: Flow Experience positively influences E-Word of Mouth

5.2.9 Flow Experience and Subjective Happiness.

Past evidences reveal that there exists a relationship between subjective happiness and flow state. It refers to an individual's evaluation of their well-being, happiness, and life satisfaction derived from their gaming experiences (Jun-Jie Hew et al., 2023) (Hsueh-Liang Fan et al., 2019) .When individuals enter a state of flow, they tend to experience significantly higher levels of happiness compared to other conditions (Moneta, 2004). This notion is supported by Chen et al., (2000), who found that the flow state positively impacts happiness among web users. Engeser and Baumann (2016) also agree with this

idea and suggest that flow experiences lead to happiness, particularly in leisure activities. Therefore, it can be said that a flow state leads to a sense of happiness in individuals (Sanjamsai & Phukao, 2018) (Su et al., 2016). In the context of online gaming videos, Chen (2007) said that the flow of experiences derived from gaming should be a source of happiness. Thus it is hypothesized as:

H9: Flow Experience positively influences Subjective Happiness

5.2.10 Flow Experience and Pathological Internet Use

The flow literature within the Information Systems (IS) domain indicates that facilitating optimal experiences can yield positive outcomes (Esteban-Milla et al., 2014; Koufaris, 2002; Zhou, 2013). However, it is crucial to acknowledge that the effects of the flow experience can have adverse consequences. It may contribute to the development of a bad habit, fostering a pathological dependency on the use of the IT artifact (Chou & Ting, 2003; Turel & Serenko, 2012). Notably, evidence suggests that individuals deeply engaged in a flow state within an activity are more prone to repeating the activity, potentially leading to addiction tendencies (Chou & Ting, 2003; Park & Hwang, 2009). It is uncontrollable, excessive and compulsive gaming leading to social and/or emotional problems. (Zhao et al., 2020, p.1). For instance, Chou and Ting (2003) discovered that users experiencing a flow state while engaging in cyber-games are more likely to develop addiction.

In the context of this study, where adolescents have substantial time and easy access to internet-enabled technologies, those experiencing the flow state during internet usage are particularly vulnerable to problems related to Pathological Internet Use/Internet addiction (Watters et al., 2013; Timothy Sim et al., 2007; Yang & Tung, 2007). Building on this discussion, the hypotheses is formulated as follows:

H10: Flow Experience positively Influences Pathological Internet Use

5.2.11 Flow Experience and Psychological Distress

Psychological distress is defined as the presence of non-specific symptoms of stress, anxiety, and depression. High levels of psychological distress are indicative of impaired mental health and may reflect common mental disorders, such as depressive and anxiety disorders (Cuijpers et al., 2009). Literature indicates that in an academic context, flow is found to be negatively associated with anxiety, suggesting that higher flow experiences can reduce feelings of anxiety. The findings suggest that

promoting flow experiences in educational settings can help alleviate anxiety among students by enhancing their self-esteem and academic self-efficacy (Yanhui Mao, 2020).

Similarly, in previous research exploring the impact of flow experience on depressive symptoms among university students, it was hypothesized that there would be a decrease in the level of depression after practicing a flow experience activity among university students (Amra Khan et al., 2023).

The Energy Model of Self-control depicts that an individual's self-control is contingent upon limited psychological resources (Baumeister, 2010). The core element of the flow experience is high concentration or focus (Csikszentmihalyi et al., 2005), indicating that individuals with high levels of flow experience are deeply engrossed in their online gaming, occupying their psychological resources. Consequently, individuals who experience elevated levels of flow while gaming may have diminished psychological resources to regulate their emotions. Based on the evidence presented above, it can be assumed that this is the case. Thus, it is hypothesized as:

H11: Flow Experience negatively influences Psychological Distress

H11a: Flow Experience negatively influences Anxiety

H11b: Flow Experience negatively influences Depression

SECTION 6

RESEARCH METHODOLOGY

6.1 Research Design

This proposed research adopts a mixed research design which comprises descriptive research design and causal research: experimental research design.

6.1.1 Descriptive Research Design

The proposed research employs a descriptive research design, which aims to provide a precise representation of individuals, events, or situations (Saunder et al., 2019). This approach relies on the use of online survey techniques to gather comprehensive data, thereby enhancing the accessibility and reach of the study. Through this design, the research offers a true representation of the attitudes, preferences, and behaviors of consumers of online gaming.

6.1.2 Causal Research: Experimental Research Design

Additionally, the research applies a 'Time Series Design', a form of Quasi-Experimental design. This design involves a series of periodic measurements on the dependent variable for a group of test units. The treatment is then administered by the researcher in an environment that is not fully controlled or occurs naturally since the researcher is not able to schedule the treatment (Churchill, 1987). Since the nature of research is longitudinal, periodic measurements shall be taken to determine the treatment effect (Malhotra, 2016). A time series experiment may be symbolized as -

$$\mathbf{O_1\ O_2\ O_3\ O_4\ O_5\ X\ O_6\ O_7\ O_8\ O_9\ O_{10}}$$

Where,

O_1 to O_5 is the pre-treatment measures

O_6 to O_{10} are the post-treatment measures

X is the exposure of a group to the treatment given. Here the treatment involves actively engaging in playing the game on their device(s).

Independent Variable: Referring to the conceptual framework, select variables from product attributes and flow experience shall be treated as independent variables.

Dependent Variable: Referring to the conceptual framework, select variables from the consequences shall be treated as dependent variables.

The observation numbers are just the symbolic notation hence, the actual number of observations may vary as per the need of the study.

6.2 Scope of the study

The scope of this research lies within the demographic of Generation Z, often referred to as Gen Z. This cohort, also known by alternative terms such as iGen or post-millennials, includes individuals born between 1997 and 2012 who are between the ages of 12 and 27. This generation is distinguished as the first to mature in an entirely digital environment. They are early exposures to social media and the internet. This age range of 12-27 years captures the unique perspectives, behaviors, and preferences of individuals who have come of age in the era of advanced digital technology, including online gaming.

6.3 Sample Design

The chosen sampling design is purposive sampling, which falls under the category of non-probability

sampling methods. Purposive sampling involves selecting individuals deliberately based on specific criteria. There are two primary types of purposive sampling, judgment sampling and quota sampling. Judgment sampling is when the researcher handpicks sample members based on predetermined criteria. On the other hand, quota sampling is used to enhance representativeness (Cooper and Schindler, 2006).

6.4 Sample Size

6.4.1 Sample Size Estimation for Descriptive Research Design

The research involves an infinite population, and due to the need for a large sample size, we are using a sample size formula for infinite populations (more than 50,000). This formula, based on precision rate and confidence level, helps determine the right number of respondents for the study when the population estimate is unknown (Godden, 2004).

$$SS = \frac{Z^2 \times p \times (1-p)}{C^2}$$

Where,

SS = sample size

Z = Z-value (e.g. 1.96 for a confidence level of 95 percent)

P = Percentage of the population making a choice, expressed as a decimal.

C = Confidence interval, expressed as a decimal.

To minimize the bias and obtain a realistic sample size, the scenario is estimating 50% of the population with a 5% Margin of Error.

Table 3 Sample Size Estimation (Descriptive Research)

Scenario	**Population Scenario**	**Z value at 95% confidence level**	**Margin of Error**	**Sample size calculation**	**Sample size**
	50%	1.96	5%	(1.96)^2*.5(1-.5)/(.05)^2	384.16
Total					**384**

(Source: Researcher's Construct)

Therefore, the suggested sample size for the study is **384**. As the study involves an infinite sample, there's flexibility to expand this sample size if needed.

6.4.2 Sample Size Estimation for Causal Research: Experimental Research Design

Additionally, for causal research design, Lehr (1992) presents a straightforward method for calculating the sample size required per group. If the power level is set at 0.80 and the alpha at 0.05, which are the two commonly used settings, the number 16 should be divided by the square of the effect size. If there are two groups (e.g. a control group and an experimental group), the researcher doubles the result. For the study the sample size would be:

Table 4 Sample Size Estimation (Causal Research)

Scenario	Effect size(d)	Effect type	N=16/d^2	Sample size
1	0.8	Large effect	16/(0.8)^2=16/0.64=25	25
2	0.5	Moderate effect	16/(0.5)^2=16/0.25=64	64
3	0.3	Small effect	16 /(0.3)6^2=16 /0.09=178	178
Total				267
Average				**89**

(Source: Researcher's Construct)

6.5 Source of Data Collection:

6.5.1 Primary Data Collection

For primary data collection, a structured questionnaire will be used. This questionnaire will be designed to get targeted responses from participants, providing valuable insights into various aspects of online gaming preferences, behaviors, and experiences. The questions will be strategically formulated to gather quantitative data that will address the research objectives. The use of a questionnaire ensures a systematic and efficient approach to getting firsthand perspectives from consumers of the online gaming community, contributing to the depth and reliability of the primary data.

6.5.2 Secondary Data Collection

Given the dynamic nature of the research, secondary data will serve as a valuable resource for obtaining information and insights. The study will draw upon a range of sources, including industry reports on online gaming from well-established firms like 'KPMG', 'Deloitte', and 'EY'. Furthermore, insights will be gathered from reports by 'IBEF', and from reputable journals and magazines such as 'McKinsey Quarterly'. In addition to these, data will also be extracted from diverse gaming platforms, ensuring a comprehensive understanding of the subject. Quantitative data will be obtained from reliable statistical

sources like 'Statista'. The inclusion of these diverse and reputable sources aims to enrich the research.

6.6 Statistical Tools to be Used

The research objectives and testing of the hypotheses, the researcher is keen to analyze the data through the application of statistical methods. The proposed methodology involves employing Structural Equation Modeling (PLS-SEM) as the chosen statistical approach for analyzing the data and testing the provided hypotheses. Bollen (1989) has elucidated that SEM serves as a versatile statistical framework encompassing various multivariate techniques. The rationale behind opting for SEM in this study lies in its capacity to represent unobserved concepts and constructs that may be absent in prior literature. Additionally, given the substantial number of variables within the framework, Structural Equation Modeling stands out as a prominent technique for visually depicting complex relationships among variables. Moreover, complementary inferential statistical tools such as descriptive statistics will be applied for comprehensive data analysis.

Table 5 Tabular summarization of Research Objectives and Methodology

S.No	Research Objective	Methodology
1	**To explore the prevailing market scenario of the online gaming industry in India.**	The research will use secondary data from specific industry reports on online gaming (IBEF, KPMG, EY etc) as they provide up-to-date data and comprehensive insights about the industry,to assess the market scenario of the online gaming industry in India. A comprehensive literature review and data extraction from reports will be conducted to analyze indicators like market size, growth trends, user demographics, regulatory changes, and technological advancements. The methodology ensures a reliable and comprehensive understanding of the industry, with insights for stakeholders and strategic recommendations.
2	**To study the influence of the identified set of antecedents (consumer and product attributes) over the flow experience of consumers of the online gaming industry.**	Primary data will be acquired through a questionnaire survey from respondents, supplemented by the utilization of secondary data sources. The research will employ Structural Equation Modelling (PLS-SEM) for hypotheses testing, along with the application of other pertinent inferential statistical tools and descriptive statistics to enhance the analytical framework.

3	**To study the influence of flow experience on the identified set of consequences (organization value and consumer wellness outcomes) within the online gaming industry.**	This proposed research adopts a mixed research design which comprises descriptive and Causal-research design: Experimentation adopting "Time Series Design" a form of quasi-experimental design. Select variables from the conceptual framework will be referred.
4	**To recommend a strategic framework based on the results obtained**	A proposed framework will be developed based on the results of the proposed objectives and study findings.

(Source: Researcher's Construct)

SECTION 7

PROPOSED CHAPTERIZATION

The Proposed Research will comprise the following chapters:

- Chapter 1: Introduction
- Chapter 2: Review of Literature
- Chapter 3: Research Design and Methodology
- Chapter 4: Data Collection and Analysis
- Chapter 5: Result and Interpretation
- Chapter 6: Conclusion, Limitations, and Directions for Future Research
- References and Bibliography
- Appendix

References and Bibliography

- Akın, A. (2012). The relationships between Internet addiction, subjective vitality, and subjective happiness. Cyberpsychology, Behavior, and Social Networking, 15(8), 404-410.
- Alessandri, G., Zuffianò, A., & Perinelli, E. (2017). Evaluating intervention programs with a pretest-posttest design: A structural equation modeling approach. Frontiers in psychology, 8, 223.
- Atthill, S., Witmer, D., Luctkar-Flude, M., & Tyerman, J. (2021). Exploring the impact of a virtual asynchronous debriefing method after a virtual simulation game to support clinical decision-making. Clinical Simulation in Nursing, 50, 10-18.
- Banyte, J., & Gadeikiene, A. (2015). The effect of consumer motivation to play games on video

game-playing engagement. Procedia economics and finance, 26, 505-514.

- Bauer, J. C., Linzmajer, M., Nagengast, L., Rudolph, T., & D'Cruz, E. (2020). Gamifying the digital shopping experience: games without monetary participation incentives increase customer satisfaction and loyalty. Journal of Service Management, 31(3), 563-595.
- Baumeister, R. F., & Vohs, K. D. (2018). Strength model of self-regulation as limited resource: Assessment, controversies, update. In Self-regulation and self-control (pp. 78-128). Routledge.
- Bilgihan, A. (2012). The Role Of Flow In Creating E-loyalty: The Case Of Online Hotel Booking Websites.
- Bonacchi, M., & Perego, P. (2012). Improving profitability with customer-centric strategies: The case of a mobile content provider. Strategic Change, 20(7-8), 253-267.
- Calvo-Porral, C., Faíña-Medín, A., & Nieto-Mengotti, M. (2017). Exploring technology satisfaction: An approach through the flow experience. Computers in Human Behavior, 66, 400-408.
- Carlson, J., de Vries, N. J., Rahman, M. M., & Taylor, A. (2017). Go with the flow: Engineering flow experiences for customer engagement value creation in branded social media environments. Journal of Brand Management, 24, 334-348.
- Carpentier, J., Mageau, G. A., & Vallerand, R. J. (2012). Ruminations and flow: Why do people with a more harmonious passion experience higher well-being? Journal of Happiness studies, 13, 501-518.
- Catalán, S., Martínez, E., & Wallace, E. (2019). The role of flow for mobile advergaming effectiveness. Online Information Review, 43(7), 1228-1244.
- Çavdar, A. B., & Ferhatosmanoğlu, N. (2018). Airline customer lifetime value estimation using data analytics supported by social network information. Journal of Air Transport Management, 67, 19-33.
- Chang, C. C. (2013). Examining users′ intention to continue using social network games: A flow experience perspective. Telematics and Informatics, 30(4), 311-321.
- Chen, J. (2007). Flow in games (and everything else). Communications of the ACM, 50(4), 31-34.

- Choi, B., Lee, I., Choi, D., & Kim, J. (2007). Collaborate and share: An experimental study of the effects of task and reward interdependencies in online games. CyberPsychology & Behavior, 10(4), 591-595.
- Chuang-Chun Liu, (2017) "A model for exploring players flow experience in online games", Information Technology & People, Vol. 30 Issue: 1, pp.139-162, https://doi.org/10.1108/ ITP-06-2015-0139
- Cowley, B., Charles, D., Black, M., & Hickey, R. (2008). Toward an understanding of flow in video games. Computers in Entertainment (CIE), 6(2), 1-27.
- Csikszentmihalyi, M., & Csikszentmihalyi, M. (2014). Toward a psychology of optimal experience. Flow and the foundations of positive psychology: The collected works of Mihaly Csikszentmihalyi, 209-226.
- Cuijpers, P., Cristea, I. A., Weitz, E., Gentili, C., & Berking, M. (2016). The effects of cognitive and behavioural therapies for anxiety disorders on depression: a meta-analysis. Psychological Medicine, 46(16), 3451-3462.
- De Bruyn, A. & G. Lilien (2008), A Multi-Stage Model of Word-Of-Mouth Influence, International. Journal of Research in Marketing. 151-163.
- Engeser, S., & Baumann, N. (2016). Fluctuation of flow and affect in everyday life: A second look at the paradox of work. Journal of Happiness Studies, 17, 105-124.
- Ertemel, A. V., Civelek, M. E., Eroğlu Pektaş, G. Ö., & Çemberci, M. (2021). The role of customer experience in the effect of online flow state on customer loyalty. PloS one, 16(7), e0254685.
- Ermi, L., & Mäyrä, F. (2005, June). Fundamental components of the gameplay experience: Analysing immersion. In DiGRA Conference.
- Fan, H. L., Hou, S. T., & Lin, Y. H. (2019). Flow as a mediator between psychological ownership and employees' subjective happiness. Journal of Managerial Psychology, 34(7), 445-458.
- Fiss, P. C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. Academy of management journal, 54(2), 393-420.
- Fu, F. L., Su, R. C., & Yu, S. C. (2009). EGameFlow: A scale to measure learners' enjoyment of

e-learning games. Computers & Education, 52(1), 101-112.

- Ganzach, Y., & Karsahi, N. (1995). Message framing and buying behavior: A field experiment. Journal of Business research, 32(1), 11-17.
- Goyette, I., Ricard, L., Bergeron, J., & Marticotte, F. (2010). e-WOM Scale: word-of-mouth measurement scale for e-services context. Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration, 27(1), 5-23.
- Hair Jr, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. Journal of Business Research, 109, 101-110.
- Hamari, J., & Koivisto, J. (2014). Measuring flow in gamification: Dispositional flow scale-2. Computers in Human Behavior, 40, 133-143.
- Han-Chung Huang, Li-Shia Huang, Yu-Jen Chou, Ching-I. Teng, Influence of Temperament and Character on Online Gamer Loyalty Perspectives from Personality and Flow Theories, Computers in Human Behavior (2017), doi: 10.1016/j.chb.2017.01.009
- Hew, J. J., Lee, V. H., T'ng, S. T., Tan, G. W. H., Ooi, K. B., & Dwivedi, Y. K. (2024). Are online mobile gamers really happy? On the suppressor role of online game addiction. Information Systems Frontiers, 26(1), 217-249.
- Hiziroglu, A., & Sengul, S. (2012). Investigating two customer lifetime value models from segmentation perspective. Procedia-Social and Behavioral Sciences, 62, 766-774.
- Hoffman, D. L., & Novak, T. P. (1997). Measuring the flow experience among web users. Interval research corporation, 31(1), 1-35.
- Hoffman, D. L., & Novak, T. P. (2009). Flow online: lessons learned and future prospects. Journal of interactive marketing, 23(1), 23-34.
- Holt, R., & Mitterer, J. (2000). Examining video game immersion as a flow state. 108th Annual Psychological Association, Washington, DC.
- Hu, H., Zhang, G., Yang, X., Zhang, H., Lei, L., & Wang, P. (2022). Online gaming addiction and depressive symptoms among game players of the glory of the king in China: the mediating role of affect balance and the moderating role of flow experience. International Journal of Mental Health

and Addiction, 20(5), 3191-3204.

- Huang, X., Shi, H. X., Li, H. Q., Guo, W. J., Luo, D., & Xu, J. J. (2022). Differential Effects of Anxiety on Internet Gaming Disorder: A Large-Scale Cross-Sectional Survey. Frontiers in Psychiatry, 12, 802513.
- Jackson, S. A., & Marsh, H. W. (1996). Development and validation of a scale to measure optimal experience: The Flow State Scale. Journal of sport and exercise psychology, 18(1), 17-35.
- Jawaid A. Ghani & Satish P. Deshpande (1994) Task Characteristics and the Experience of Optimal Flow in Human—Computer Interaction, The Journal of Psychology: Interdisciplinary and Applied, 128:4, 381-391, DOI: 10.1080/00223980.1994.9712742
- Jennett, C., Cox, A. L., Cairns, P., Dhoparee, S., Epps, A., Tijs, T., & Walton, A. (2008). Measuring and defining the experience of immersion in games. International journal of human-computer studies, 66(9), 641-661.
- Jeong, E. H. (2012). The application of imagery to enhance 'flow state' in dancers (Doctoral dissertation, Victoria University).
- Kamal, N. S. Z., & Wok, S. (2020). The impact of online gaming addiction on mental health among iium students. International Journal of Heritage, Art and Multimedia, 3(11), 01-20.
- Kenrick, D. T., Griskevicius, V., Neuberg, S. L., & Schaller, M. (2010). Renovating the pyramid of needs: Contemporary extensions built upon ancient foundations. Perspectives on psychological science, 5(3), 292-314.
- Khan, A., & Ali, A. Z. (2023). Effect of Participation in Flow Experience Activity on Depressive Symptoms in University Students: A Quasi Experimental Study. Bahria Journal of Professional Psychology, 22(2), 43.
- Kim, M. J., Lee, C. K., & Bonn, M. (2017). Obtaining a better understanding about travel-related purchase intentions among senior users of mobile social network sites. International Journal of Information Management, 37(5), 484-496..
- Kim, Y. Y., Oh, S., & Lee, H. (2005). What makes people experience flow? Social characteristics of online games. International journal of advanced media and communication, 1(1), 76-92.

- Koehn, S. (2007). Propensity and attainment of flow state (Doctoral dissertation, Victoria University). Retrieved from http://vuir.vu.edu.au/id/eprint/1535 280
- Koehn, S. (2013). Effects of confidence and anxiety on flow state in competition. European Journal of Sport Science, 13(5), 543-550.
- Koehn, S., & Díaz-Ocejo, J. (2016). Imagery intervention to increase flow state: A single-case study with middle-distance runners in the state of Qatar. International Journal of Sport & Exercise Psychology, 1-14.
- Koehn, S., & Morris, T. (2014). The effect of performance context and skill level on the frequency of flow experiences. European Journal of Sport Science, 14(sup1), S478-S486.
- Krishnamurthy, S. (2001). Understanding online message dissemination.
- Lee, M. C. (2009). Understanding the behavioural intention to play online games: An extension of the theory of planned behaviour. Online information review, 33(5), 849-872.
- Lehr, R. (1992). Sixteen S-squared over D-squared: A relation for crude sample size estimates. Statistics in medicine, 11(8), 1099-1102.
- Liu, C. C. (2017). A model for exploring players flow experience in online games. Information Technology & People, 30(1), 139-162.
- Lowry, P. B., & Gaskin, J. (2014). Partial least squares (PLS) structural equation modeling (SEM) for building and testing behavioral causal theory: When to choose it and how to use it. IEEE transactions on professional communication, 57(2), 123-146.
- Lu, Y., Zhou, T., & Wang, B. (2009). Exploring Chinese users' acceptance of instant messaging using the theory of planned behavior, the technology acceptance model, and the flow theory. Computers in human behavior, 25(1), 29-39.
- M. Csikszentmihalyi, J. LeFevre, Optimal experience in work and leisure, Journal of Personality and Social Psychology 56 (5), 1989, pp. 815–822.
- Maslow, A. H. (1943). A theory of human motivation. Psychological Review, 50(4), 370–396.
- Ming-Chi Lee & Tzung-Ru Tsai (2010): What Drives People to Continue to Play Online Games? An Extension of Technology Model and Theory of Planned Behavior, International Journal of

Human-Computer Interaction, 26:6, 601-620

- Morris, T., & Watt, A. P. (2013). Flow state in self-paced and externally-paced performance contexts: An examination of the flow model. Psychology of Sport & Exercise, 14(6), 787-795
- Nicholls, A. R., Polman, R. C., & Holt, N. L. (2005). The effects of an individualized imagery interventions on flow states and golf performance. Athletic Insight, 7(1), 43-66
- Nie, J., Zheng, C., Zeng, P., Zhou, B., Lei, L., & Wang, P. (2020). Using the theory of planned behavior and the role of social image to understand mobile English learning check-in behavior. Computers & Education, 156, 103942.
- North, M. M., & North, S. M. (2019). Dynamic immersive visualisation environments: Enhancing pedagogical techniques. Australasian Journal of Information Systems, 23.
- Novak, T. P., Hoffman, D. L., & Duhachek, A. (2003). The influence of goal-directed and experiential activities on online flow experiences. Journal of consumer psychology, 13(1-2), 3-16.
- Obadă, D. R. (2013). Flow theory and online marketing outcomes: a critical literature review. Procedia Economics and Finance, 6, 550-561.
- Oliveira, W., Pastushenko, O., Rodrigues, L., Toda, A. M., Palomino, P. T., Hamari, J., & Isotani, S. (2021). Does gamification affect flow experience? A systematic literature review. arXiv preprint arXiv:2106.09942.
- Ostinelli, E. G., Zangani, C., Giordano, B., Maestri, D., Gambini, O., D'Agostino, A., ... & Purgato, M. (2021). Depressive symptoms and depression in individuals with internet gaming disorder: A systematic review and meta-analysis. Journal of affective disorders, 284, 136-142.
- Park, S., & Hwang, H. S. (2009). Understanding online game addiction: Connection between presence and flow. In Human-Computer Interaction. Interacting in Various Application Domains: 13th International Conference, HCI International 2009, San Diego, CA, USA, July 19-24, 2009, Proceedings, Part IV 13 (pp. 378-386). Springer Berlin Heidelberg.
- Pates, J., & Palmi, J. (2002). The effects of hypnosis on flow states and performance. Journal of Excellence, 6, 48-62.
- Pavlas, Davin, "A Model Of Flow And Play In Game-based Learning The Impact Of Game

Characteristics, Player Traits, And Player States" (2010). Electronic Theses and Dissertations. 1657. https://stars.library.ucf.edu/etd/1657

- Perišić, A., & Pahor, M. (2020). Extended RFM logit model for churn prediction in the mobile gaming market. Croatian Operational Research Review, 249-261.
- Perttula, A., Kiili, K., Lindstedt, A., & Tuomi, P. (2017). Flow experience in game based learning–a systematic literature review.
- Renard, D. (2013). Online promotional games: Impact of flow experience on word-of-mouth and personal information sharing. International Business Research, 6(9), 93.
- Rettie, R. (2001). An exploration of flow during Internet use. Internet research, 11(2), 103-113.
- Rialti, R., Zollo, L., Pellegrini, M. M., & Ciappei, C. (2017). Exploring the antecedents of brand loyalty and electronic word of mouth in social-media-based brand communities: do gender differences matter?. Journal of Global Marketing, 30(3), 147-160.
- Ringle, C. M., Sarstedt, M., & Straub, D. W. (2012). Editor's comments: a critical look at the use of PLS-SEM in" MIS Quarterly". MIS quarterly, iii-xiv.
- Rodríguez-Ardura, I., & Meseguer-Artola, A. (2016). E-learning continuance: The impact of interactivity and the mediating role of imagery, presence and flow. Information & Management, 53(4), 504-516.
- Rodríguez-Ardura, I., & Meseguer-Artola, A. (2017). Flow in e-learning: What drives it and why it matters. British journal of educational technology, 48(4), 899-915.
- Rose, S., Clark, M., Samouel, P., & Hair, N. (2012). Online customer experience in e-retailing: an empirical model of antecedents and outcomes. Journal of retailing, 88(2), 308-322.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68–78.
- Sanjamsai, S., & Phukao, D. (2018). Flow experience in computer game playing among Thai university students. Kasetsart Journal of Social Sciences, 39(2), 175-182.
- Seon, J. H., Jung, S. O., & Lee, K. H. (2021). Building a runway to subjective happiness: The role of fashion modeling classes in promoting seniors' mental well-being. International Journal of

Environmental Research and Public Health, 18(24), 13144.

- Sharma, S. K., Gaur, A., Saddikuti, V., & Rastogi, A. (2017). Structural equation model (SEM)-neural network (NN) model for predicting quality determinants of e-learning management systems. Behaviour & information technology, 36(10), 1053-1066.
- Sherry, J. L. (2004). Flow and media enjoyment. Communication theory, 14(4), 328-347.
- Shoshani, A., & Yaari, S. (2022). Parental flow and positive emotions: Optimal experiences in parent–child interactions and parents' well-being. Journal of happiness studies, 23(2), 789-811.
- Csikszentmihalyi, M. (1975). Play and intrinsic rewards. Journal of Humanistic Psychology, 15, 41–63.
- Sim, T., Gentile, D. A., Bricolo, F., Serpelloni, G., & Gulamoydeen, F. (2012). A conceptual review of research on the pathological use of computers, video games, and the Internet. International Journal of Mental Health and Addiction, 10, 748-769.
- Solomon, M. R. (2010). Consumer behaviour: A European perspective. Pearson education.
- Su, Y. S., Chiang, W. L., Lee, C. T. J., & Chang, H. C. (2016). The effect of flow experience on player loyalty in mobile game application. Computers in Human Behavior, 63, 240-248.
- Sweetser, P., & Wyeth, P. (2005). GameFlow: a model for evaluating player enjoyment in games. Computers in Entertainment (CIE), 3(3), 3-3.
- Tan, G. W. H., Ooi, K. B., Leong, L. Y., & Lin, B. (2014). Predicting the drivers of behavioral intention to use mobile learning: A hybrid SEM-Neural Networks approach. Computers in Human Behavior, 36, 198-213.
- Tang, Q., Zhao, X., & Liu, S. (2016). The effect of intrinsic and extrinsic motivations on mobile coupon sharing in social network sites: The role of coupon proneness. Internet Research, 26(1), 101–119
- Taylor, L. N. (2002). Video games: Perspective, point-of-view, and immersion.
- Teng, C. I., & Chen, W. W. (2014). Team participation and online gamer loyalty. Electronic Commerce Research and Applications, 13(1), 24-31.
- Teo, T. S. H., Lim, V. K. G., & Lai, R. Y. C. (1999). Intrinsic and extrinsic motivation in Internet

usage. The International Journal of Management Science, 27(1), 25–37.

- Turel, O., & Serenko, A. (2012). The benefits and dangers of enjoyment with social networking websites. European Journal of Information Systems, 21, 512-528.
- Viertiö, S., Kiviruusu, O., Piirtola, M., Kaprio, J., Korhonen, T., Marttunen, M., & Suvisaari, J. (2021). Factors contributing to psychological distress in the working population, with a special reference to gender difference. BMC public health, 21, 1-17.
- Wang, X., & Goh, D. H. L. (2017). Video game acceptance: A meta-analysis of the extended technology acceptance model. Cyberpsychology, Behavior, and Social Networking, 20(11), 662-671.
- Waterman, A. S., Schwartz, S. J., & Conti, R. (2008). The implications of two conceptions of happiness (hedonic enjoyment and eudaimonia) for the understanding of intrinsic motivation. Journal of Happiness Studies, 9(1), 41–79.
- Watters, C. A., Keefer, K. V., Kloosterman, P. H., Summerfeldt, L. J., & Parker, J. D. (2013). Examining the structure of the Internet Addiction Test in adolescents: A bifactor approach. Computers in Human Behavior, 29(6), 2294-2302.
- Wei, H. T., Chen, M. H., Huang, P. C., & Bai, Y. M. (2012). The association between online gaming, social phobia, and depression: an internet survey. BMC psychiatry, 12(1), 1-7.
- Weibel, D., Wissmath, B., Habegger, S., Steiner, Y., & Groner, R. (2008). Playing online games against computer-vs. human-controlled opponents: Effects on presence, flow, and enjoyment. Computers in human behavior, 24(5), 2274-2291.
- Wong, K. K. K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. Marketing bulletin, 24(1), 1-32.
- Wood, R. T., & Griffiths, M. D. (2007). Time loss whilst playing video games: Is there a relationship to addictive behaviours?. International Journal of Mental Health and Addiction, 5, 141-149.
- Woodside, A. G. (2014). Embrace• perform• model: Complexity theory, contrarian case analysis, and multiple realities. Journal of Business Research, 67(12), 2495-2503.

- Wu, X., & Santana, S. (2022). Impact of Intrinsic and Extrinsic Gaming Elements on Online Purchase Intention. Frontiers in Psychology, 13, 885619.
- Yang, S., Lu, Y., Wang, B., & Zhao, L. (2014). The benefits and dangers of flow experience in high school students' internet usage: The role of parental support. Computers in Human Behavior, 41, 504-513.
- Yun Jung Lee, Sejin Ha, Zachary Johnson, (2019) "Antecedents and consequences of flow state in e-commerce", Journal of Consumer Marketing, https://doi.org/10.1108/JCM-10-2015-1579
- Zaky, Y. A. M. (2023). Chatbot Positive Design to Facilitate Referencing Skills and Improve Digital Well-Being. International Journal of Interactive Mobile Technologies, 17(9).
- Zhao, S., Wu, R., Tao, J., Qu, M., Zhao, M., Fan, C., & Zhao, H. (2023). perCLTV: A general system for personalized customer lifetime value prediction in online games. ACM Transactions on Information Systems, 41(1), 1-29.

Websites:

- https://www.ibef.org/industry/media-entertainment-india.
- https://www.investindia.gov.in/sector/media.
- https://www.statista.com/outlook/dmo/digital-media/video-games/online-games/india.
- https://aigf.in/.
- https://www.mordorintelligence.com/industry-reports/global-gaming-market.
- https://www.mckinsey.com/featured-insights/themes/how-the-business-of-gaming-is-evolving.

Books:

- Churchill. G. A. (1991). Marketing Research: Methodological Foundations. Dryden Press.
- Cohen, L., Manion, L., & Morrison, K. (2007). Research methods in education. Routledge.
- Cooper, D. R., & Schindler, P. (2014). Business research methods. Mcgraw-hill
- Gall, M. D., Borg, W. R., & Gall, J. P. (1996). Educational research: An introduction. Longman Publishing.
- Malhotra, N. K. (2020). Marketing research: an applied orientation. Pearson.